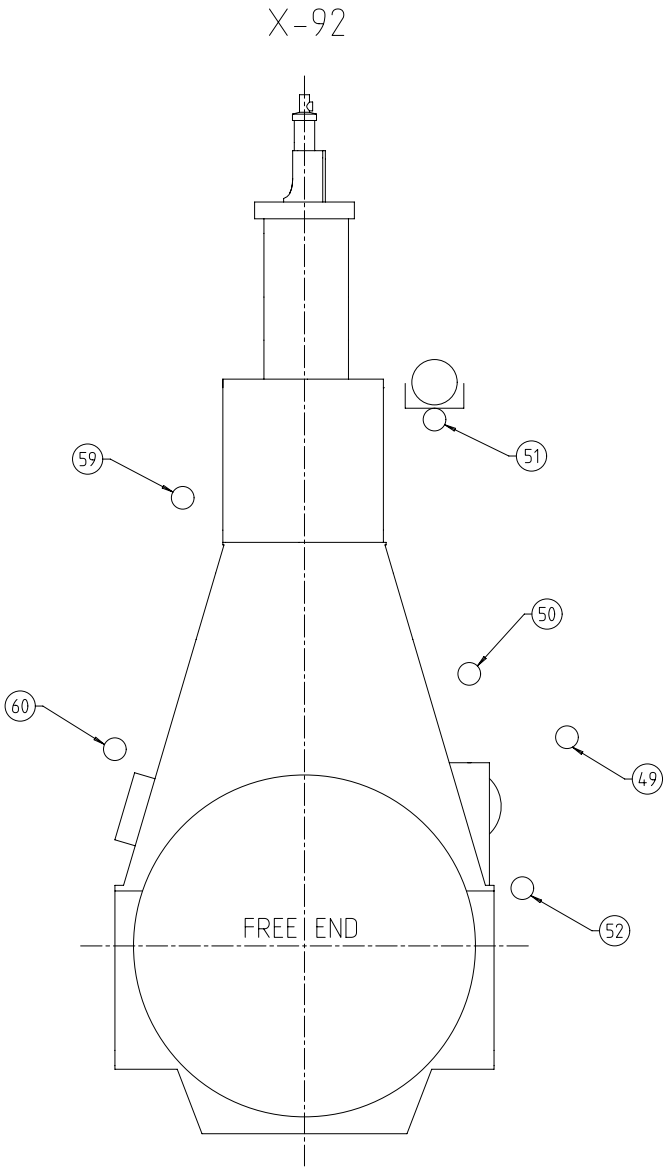


CONFIDENTIAL - DIMENSIONAL DRAWING - Confidential

SPECIFICATION which must be met



- 49

D

INLET - Fuel oil

Fuel oil quality at engine inlet: according to specification in Marine Installation Manual (MIM)

Pressure at engine inlet: stopped engine: 10 bar
running engine: 7-10 bar

Volume flow: according to GTD

Viscosity:

 - Viscosity for HFO: 10-20 cSt (recommendation: 13-17 cSt)
 - Viscosity MDO/MGO: 2-20 cSt

Filtration:

 - At least one filter unit close to the engine inlet.
 - One filter unit with max. 10 micron (absolute, sphere passing mesh) in the fuel system (either in feed- or booster circuit)
 - Bypass filter in parallel to the main fuel oil filter with max. 25 micron (absolute, sphere passing mesh)

Fuel change-over:

 - Max. temperature gradient during fuel change-over: 2 °C/min
 - Fuel amount on engine side: mentioned in table 1 on page 2.
 - Fuel amount on system side: according to project specific system layout.
- 50

D

OUTLET - Fuel return

 - Normal operation condition: Returning to mixing unit.
 - During fuel change-over while engine is not in service: returning to service tank.
- 51

D

OUTLET - Drain rail-unit (dirty)

 - Dirty fuel: Mixed drain (LO,FO) from rail-unit, not for re-use
 - Free flow by gravity to sludge oil tank or appropriate tank.
 - Pipe insulated and heated up (50-95 °C)
- 52

D

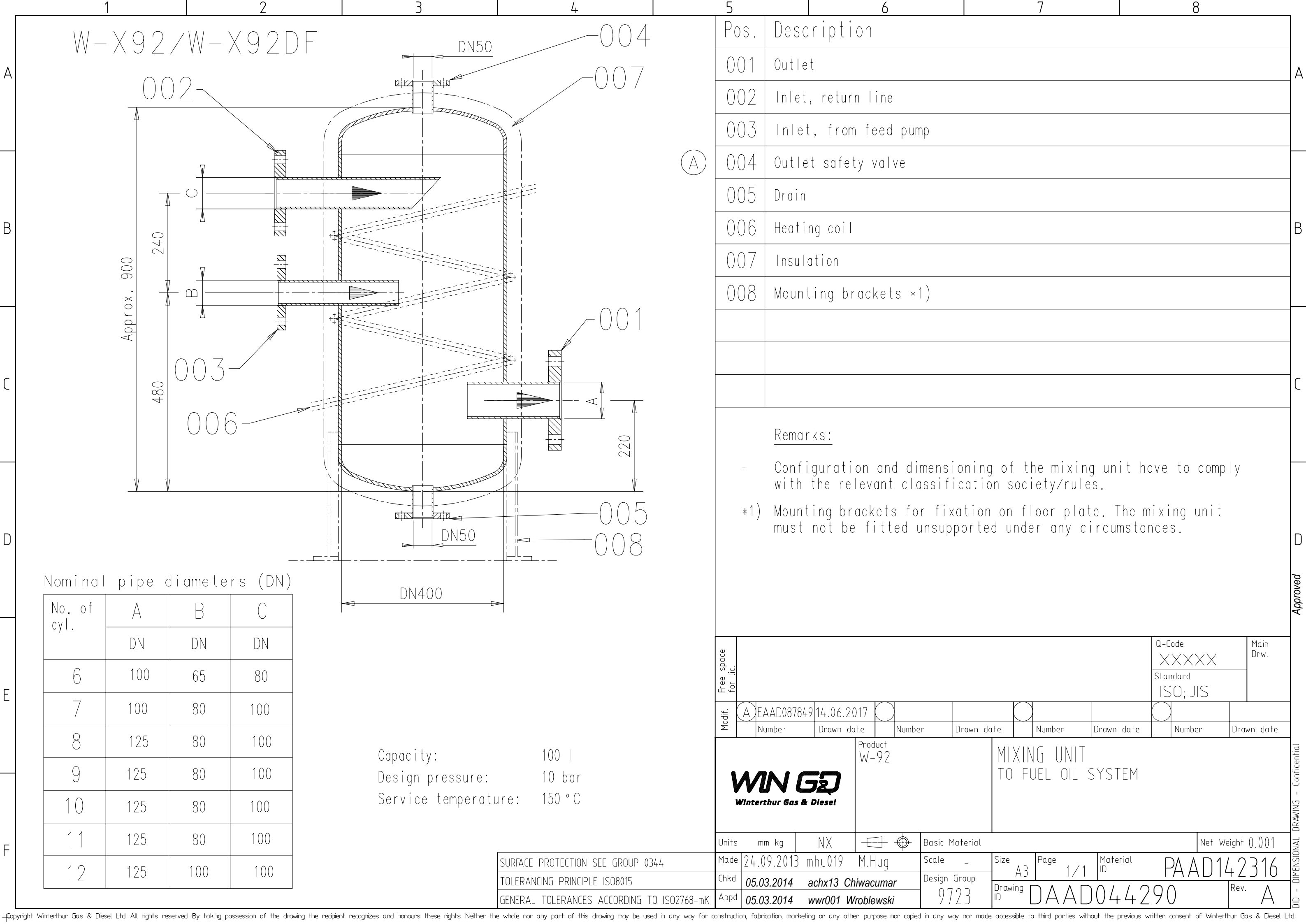
OUTLET - Fuel return, pressureless (clean)

 - This pressureless fuel return consists of the following 2 types of clean fuel, namely:
'Normal drainage'
Expected (design) fuel return from the fuel pump and injection control side during normal operation.
'Leakage'
Unexpected fuel return from an emergency situation only (e.g. high pressure pipe damage).
 - Clean fuel must be collected in a drain tank (or appropriate tank) by gravity free flow
 - Piping must be insulated and heated (50-95°C)
- 59

INLET - Heating medium for fuel oil trace heating

 - Connected to steam or thermal oil supply

1	008	PAAD142316	MIXING UNIT	DAAD044290		0,001							
QTY	SEQ NO	Material ID	Material Name	Dimension, Occ	Standard or Drawing	Basic Material Material Standard	Weight GR./NET						
Free space for lic.						Q-Code XXXXX	Main Drw.						
						Standard ISO; JIS							
Modif.	A	EAAD085468	05.02.2015	B	EAAD085894	16.07.2015	C	EAAD089659	03.10.2018	D	EAAD091789	04.12.2019	
	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date			
WIN GD Winterthur Gas & Diesel			Product 6-12X92		FUEL OIL SYSTEM HFO&MDO&MGO Brennstoffsystem								
Units	mm kg	NX		Basic Material		Net Weight 0,001							
SURFACE PROTECTION SEE GROUP 0344		Made	27.03.2013	asex06 A.Sekulic		Scale	-	Size	A2	Page	1/2	Material ID	PAAD118085
TOLERANCING PRINCIPLE ISO8015		Chkd	05.03.2014	achx13 Chiwacumar		Design Group		Drawing ID	7273	DAAD036967		Rev.	D
GENERAL TOLERANCES ACCORDING TO ISO2768-mK		Appd	05.03.2014	wwr001 Wroblewski									



MIDS WinGD X92 FUEL-OIL-SYSTEM

TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2017-01-12	DRAWING SET	First web upload
2017-08-18	DAAD044290	Mixing unit drg - new revision
2018-10-01	DAAD036968 DAAD036967	Main drg - new revision System drg - new revision
2020-09-30	DAAD036967	System drg – new revision

DISCLAIMER

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